SESSION VI
TIME: Thursday May 11, 10:30-12:00
ROOM: Elizabethan Room A
TRACK: Inland and Deep Draft Navigation
TOPIC: Navigation and Cultural Resources
MODERATOR: Darlene Guinto, NWD

PRESENTATIONS:

Title: Artifacts on Lewes Beach: The Roosevelt Inlet Shipwreck
Presenter: Robert A. Dunn, Philadelphia District

Abstract: In December 2004, the U.S. Army Corps of Engineers, Philadelphia District learned of numerous public accounts regarding the appearance of thousands of 18th century artifacts throughout the sand recently pumped onto Delaware's Lewes Beach. The sand was deposited by the Philadelphia District's dredging contractor for the Roosevelt Inlet/Lewes Beach Nourishment Project**.** News of the "Lewes Discovery" initially appeared in the local Delaware media but within days was characterized in national media reports as an example of Corps "planning negligence." This presentation focuses on the subsequent and complex underwater archaeological investigation that identified the source of the beach artifacts. The debris field originated from a large mid-18th century British shipwreck that had gone undetected during the 1995 magnetometer and side scan sonar surveys conducted during the Feasibility Phase of Planning. Despite the volatility that developed after the media and the public became fully aware of the "Lewes Discovery Site," collaboration with other Corps Districts, partnering with the State of Delaware and strong public involvement turned what initially appeared to be a "shiner" for the Corps into a shining example of effective cultural resource management.

Title: Managing the Resource: Problems and Prospects for Archaeological Site Conservation Along the Upper Mississippi River
Presenter: Brad Perkl, St. Paul District

Abstract: The construction of the locks and dams on the Upper Mississippi River (UMR) in the 1930s created a series of relatively shallow impoundments (navigation pools) on the river as part of the 9-foot navigation channel. This system provides relatively stable water levels during non-flood periods. As a result, profound impacts have occurred and continue to negatively affect cultural resources along the UMR. Among a variety of complex mechanisms affecting cultural resources is shoreline erosion, principally caused by fluvial processes associated with streamflow, fluctuating water levels of the pool, and wave action from wind and commercial and recreational boat traffic. While the idiosyncratic nature of each site and its natural setting (e.g., bank geometry, vegetation), in addition to other factors, determines the susceptibility and extent that erosion will have on a site, erosion in general is detrimental to cultural resources. In addition to site destruction, indirect impacts from erosion potentially include site vandalism and artifact looting. During a recent study examining twenty UMR shoreline archaeological sites, bankline retreat ranges from 5-50 meters with an average of approximately 18 meters (55 ft) of shoreline loss and associated archaeological deposits over the past 60+ years. In some instances, shoreline erosion is abating with the natural establishment of vegetation. In response to shoreline erosion and other processes destructive to UMR archaeological resources, the US Army Corps of Engineers and other Federal and State agencies are confronting this situation by implementing shoreline protection schemes on the most threatened sites as funding allows, along with other

actions. This presentation will highlight erosion derived archaeological site destruction and shoreline protection methods along the UMR.

Title: Unique Planning Challenges in the Celilo Indian Village Restoration Project

Presenter: John Breiling, Portland District

Abstract: Celilo Indian Village Restoration Project, near The Dalles, Oregon, is a unique civil works project. The site itself is the oldest, central, regional tribal gathering place on the Columbia River, and is associated with the ancient Celilo Falls that was inundated in 1957 when Portland District's The Dalles Dam was watered up. Due to national Native American policies of the Eisenhower Administration, authorized village improvements and relocations were never carried out in the 1950's, as authorized by the Flood Control Act of 1950. In 1999 the 4 treaty tribes of the Mid-Columbia River approached Portland District representatives about what might be done at Celilo Village, offering a rehabilitation proposal prepared by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) near Pendleton, Oregon. After about 5 years of study and the preparation and submission of a Post Authorization Change (PAC) report, Celilo Village Restoration Project was adopted by Congress as an authorized civil works project in 2004, and funding was provided. This project is unique in the Nation. A number of unique challenges have already been met:

(1) Working with BIA and the eligible tribes, the tribes revived an inter-tribal governance structure to represent their interests and the village residents' interests. This structure is the Wyam Board, with tribal council representatives from the 3 tribes and 2 elected village representatives.

(2) A draft village code – to provide for the orderly administration of the village – has been drafted and is undergoing review. Previously there was no village (municipal) code to maintain the quality of life in the village.

(3) Some of the needed Self-determination Act contracts between the tribes and BIA are completed and in place. These Self-determination Act contracts are the legal vehicles for carrying out contractual relationships between BIA and the tribes.

Title: The Unsung Successes and Precedent Setting Implications of Kennewick Man

Presenters: Jennifer Richman, Northwestern Division; Christopher Pulliam, St. Louis District; Rubenstein, Headquarters

Abstract: The story of the treatment of the ancient human remains known as Kennewick Man has been a complex saga of collaboration and oft-noted controversy since virtually the moment of discovery along the shoreline of the McNary Reservoir in July 1996. Since then, the remains were almost returned to local Indian tribes, have been the subject of a white supremacist organization's desire, have been the centerpiece of an on-going legal battle for the last ten years, and have been the object of studies by government officials and, more recently, plaintiff scientists. Added to this have been the involvement of county coroners, members of the scientific community, and numerous authors and media stars using the human remains as the focal point in countless articles, television programs, and books. The controversy and intrigue often overshadow the tremendous collaboration and partnering that has occurred among federal agencies, state agencies, and non-governmental organizations. The media hype, rumor, and misinformation have all worked to obfuscate the many advancements in knowledge, planning, and policies that have emanated from this single skeletal discovery. This presentation focuses on certain aspects of collaboration between the U.S. Army Corps of Engineers, the Department of the Interior, and other entities. The authors will examine interagency relationships from a policy and procedural perspectives, legal and litigation perspectives, and the complex nature of court ordered care and management of a completely unique element of the cultural environment.

SESSION VI
TIME: Thursday May 11, 10:30-12:00
ROOM: California West
TRACK: Ecosystem Restoration
TOPIC: Models and Tools: Results
MODERATOR: David Vigh, Mississippi Valley Division

PRESENTATIONS:

Title: **Restoration of Island Habitat though the Beneficial Use of Dredged Material: A Community Approach**
Presenters: **Erika Mark, Baltimore District; Angela Sowers, Baltimore District; Stacey Blersch, Baltimore District; Denny Klosterman, Baltimore District.**

Abstract: The Mid-Chesapeake Bay Island Environmental Restoration feasibility study is focused on restoring island habitat to provide hundreds of acres of wetland and upland habitat for fish and wildlife through the beneficial use of dredged material. The study addresses two issues: (1) island habitat loss in the middle Chesapeake Bay due to land subsidence, rising sea level, and wave action, and (2) a shortfall of dredged material placement volume over the next 20 years.

Islands and their surrounding waters provide particularly diverse habitats that are preferentially selected by many migratory birds, as well as other fish and wildlife species. Even though similar vegetative communities may occur on the mainland, isolation, lack of human disturbance, and fewer predators make islands more attractive. Environmental benefits were quantified using Island Community Units (ICUs), a metric developed for the study that focuses on the functional communities that inhabit islands. ICUs capture the value of island habitat diversity and the benefits to the various communities in order to evaluate proposed island alignments and habitat distributions. Habitats evaluated include areas for submerged aquatic vegetation or shallow water, intertidal, low marsh, high marsh, and uplands, as well as various upland to wetland ratios.

Title: **Applying the Ecosystem Functions Model (HEC-EFM) at McCarran Ranch, Nevada**
Presenters: **John Hickey, IWR-HEC; Jason Needham, IWR-HEC**

Abstract: McCarran Ranch is a property of The Nature Conservancy, which includes 305 acres along the Truckee River, about 15 miles east of Reno, Nevada. In 1962, the channel at McCarran Ranch was straightened to limit flood damage, but because of this straightening, the channel has entrenched downward, partially disconnecting the stream and natural floodplain and stressing riparian vegetation. In 2003, The Nature Conservancy began a restoration project to reverse these effects by adding meander and grade control to that stretch of the Truckee.

An application of the Ecosystem Functions Model (HEC-EFM) for McCarran Ranch was developed by the Hydrologic Engineering Center (HEC) in collaboration with the Desert Research Institute. HEC-EFM is a planning tool that helps analyze ecosystem response to changes in flow regime. Two HEC-EFM relationships (cottonwoods and mayflies) were developed and tested for pre- and post-restoration conditions. Analysis consisted of using EFM to identify important flows and stages for the cottonwoods and mayflies, using HEC-RAS (River Analysis System) and GeoRAS to produce maps of those flows, and finally, using GIS to illustrate and quantify the effects of channel restoration. Results indicate that cottonwood and mayfly habitat will be reduced

by the channel modifications made to the Truckee River at McCarran Ranch. This presentation details the study and introduces new features available in HEC-EFM.

Title: **Planning and Analysis for the Middle Rio Grande Bosque Ecosystem Restoration Feasibility Study**

Presenters: **Lynette M. Giesen, Albuquerque District; Kelly A. Burks-Copes, ERDC**

Abstract: The U.S. Army Corps of Engineers' Albuquerque District, working in a truly collaborative setting, has developed ecosystem restoration concepts and potential educational and recreational enhancements for the Rio Grande river corridor as it winds through Bernalillo County and the City of Albuquerque, New Mexico. The goal of the program is to develop a framework to restore the bosque (the cottonwood riparian woodland within the floodplain) into a more functional and sustainable ecosystem. Critical elements of the project will be to increase the diversity and quality of wildlife habitat by creating a vegetation mosaic, reduce the fire hazard in much of the bosque through the removal of the metal jetty jacks, debris, and the dense thickets of non-native vegetation.

In order to fully analyze the existing conditions and develop viable alternatives, the Albuquerque District enlisted the expertise of the Engineer Research and Development Center's Environmental Laboratory (ERDC/EL). Working with our stakeholders, a Habitat Evaluation and Assessment Tool (HEAT) was developed for the study area. The HEAT techniques utilized to date include: development of a multi-disciplinary evaluation team (E-Team); collaborative development of a Multiple Formula Model; development and implementation of field assessment sampling procedures; calculation of baseline conditions and formulation of alternatives.

Title: **Clear Creek Watershed Flood Damage Reduction and Ecosystem Restoration Study**

Presenters: **Seth Jones, Galveston District; Robert Heinly, Galveston District; Antisa C. Webb, ERDC; Kelly A. Burks-Copes, ERDC**

Abstract: The Clear Creek watershed is approximately 47 miles long and extends from the Galveston Bay area inland to the southwest suburbs of Houston, Texas. The Galveston District is conducting a re-evaluation study for flood damage reduction while addressing ecosystem restoration opportunities on Clear Creek and six of its tributaries. Co-sponsors include Harris County Flood Control District, Galveston County, and Brazoria Drainage District No. 4. The District is partnering with the U.S. Army Engineer Research and Development Center, Environmental Laboratory (ERDC), state and federal environmental resource agencies, and the local sponsors, to ensure all stakeholder issues are addressed. With ERDC's support, the District is developing three community-based Habitat Suitability Index models to evaluate changes to the aquatic and terrestrial system resulting from project implementation using the Habitat Evaluation Procedures (HEP). This presentation describes approaches and rationales for addressing multipurpose planning for flood damage reduction and ecosystem restoration, the benefits and challenges of inter-agency planning efforts, and the methods and models used to provide qualitative and quantitative information on project benefits. The project will serve as a case study for the community-based habitat assessment approach for a HEP application in an ecosystem context, demonstrating the effectiveness and power of these models in evaluating ecosystem restoration success.

SESSION VI
TIME: Thursday May 11, 10:30-12:00
ROOM: Elizabethan Room B
TRACK: Flood & Coastal Storm Damage Reduction
TOPIC: Pre-Disaster Planning and Management
MODERATOR: Clark Frentzen, South Pacific Division

PRESENTATIONS:

Title: Interagency Flood Mitigation Program - The Silver Jackets
Presenter: Tammy Conforti, Institute for Water Resources

Abstract: The Silver Jackets Program, involves the US Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA), and State officials acting as lead facilitators in establishing an interagency team at the State level focused on flood mitigation.

This concept provides a more formal and consistent strategy for implementing an interagency approach to planning and mitigating for flood hazards and linking activities to the response and recovery of these hazards. The Silver Jackets Program will serve as the mechanism for developing and maintaining interagency partnerships.

The team's primary goals are to,

- Mesh together hazard planning and mitigation with emergency response and recovery and improve processes for both;
- Find ways to leverage available resources and information between agencies, especially with national programs such as FEMA's Map Modernization Program;
- Provide hazard mitigation assistance to high priority communities targeted by the States' mitigation plans;
- Define a process for interagency communication and roles;
- Increase and improve public outreach in the area of risk management with the establishment of a united Federal effort; and,
- Gain familiarity of each agencies' processes and programs to better advise the public.

Title: Assessing National Risk from Dams: National Dam Safety Assurance Program
Presenter: Eric Halpin, Headquarters, US Army Corps of Engineers

Abstract: At the same time that the USACE Dam Safety Program is under-going significant transitions to a risk based framework, we have been tasked with the development of a National Levee Safety Program. Each program breaks new ground in terms of how we operate, manage, assess, justify, formulate, and make investment decisions for significant elements of the national infrastructure. The intent of this paper is to update the Planning Conference attendees and the Planning CoP with the status of progress in each program and to identify specific points of intersection between the programs and the anticipated interests of the audience.

Title: **Waterbury Dam, Vermont Dam Safety Assurance Program Project Team Experience, 2000 – Present, Back to the Future**
Presenter: **Richard Ring, North Atlantic Division**

Abstract: The purpose of this presentation is to relate a PDT success story from the year 2000 and beyond that includes elements of: virtual teaming, regional teaming, vertical teaming, and collaborative planning. It is a retrospective of a team that was assembled informally and accomplished a very difficult goal, in an abbreviated timeframe, using experience, knowledge, professionalism and large doses of common sense and mutual respect. Collective focus was the glue that held the whole operation together. The "Back to the Future" connection is that all of this took place years before the establishment of the Regional Business Centers and the publishing of EC 1105-2-409, Planning in a Collaborative Environment. The Waterbury Dam PDT proved that the process works!

The PDT and PM functions for the Dam Safety Assurance Report for Waterbury Dam were managed by New York District. New England District performed the hydrology and hydraulics, dam-break modeling, economic analysis, loss-of-life analysis, environmental assessment, cultural resources, wrote the main report and produced the entire report. Baltimore District performed the geotechnical, design, cost, and contacting tasks. Also on the PDT, as full contributors, was a member of the North Atlantic Division, HQ, the State of VT Dam Safety Officer, and VT Agency for Natural Resources, and VT Division of Fisheries. Monthly meetings of the entire PDT were held.

The team produced a Dam Safety Assurance Report (main report and 11 appendices) under a 7-month compressed schedule at a cost of over $300,000. It also produced two Addendum reports due to project changes. The team has remained together, in a virtual sense, during project construction performing environmental monitoring, and other tasks relating to features added during construction.

Title: **Advancing Corps Leadership in Floodplain Management**
Presenter: **Larry Buss, Omaha District, Boni Bigornia, South Pacific Division**

Abstract: The Nation's attention on floodplain management has been recently raised due to recent hurricane damages in the southeastern U.S. Unfortunately, that attention has already receded, as lawmakers have begun to forget the tragedies associated with poor floodplain management. Opportunities for seeking remedies and solutions to the flaws in our existing 'system' can quickly disappear as other priorities rise again.

The Corps' Civil Works Strategic Plan recognizes the need for collaboration with other stakeholders ranging from FEMA to The Nature Conservancy, from local levee districts to land developers. Development of this new culture will require explicit change within the Corps. Programs like the Floodplain Management Services Program (FPMS) and Planning Assistance to the States (PAS) allow us the opportunity to develop and sustain relationships and increase networking that is needed for future success.

The purpose of this presentation is to highlight ways that the Corps can make strides in addressing floodplain management needs, at the local (district) level, at the regional (division) level, and at the national (HQUSACE) level. It will address both low-hanging fruit (potential immediate opportunities) and also offer a plan for the future.

SESSION VI
TIME: Thursday 11 May, 10:30-12:00
ROOM: Elizabethan Room C
TRACK: Watershed/System Assessment
TOPIC: Case Studies in Regional & Collaborative Planning
MODERATOR: Kevin Craig, Southwestern Division

PRESENTATIONS:

Title: **Applying the Principles of the Strategic Plan (Goal #1) to the Sacramento and San Joaquin River Basins Comprehensive Study**
Presenters: **Alicia Kirchner, Sacramento District; Donna Ayres, IWR**

Abstract: The Sacramento and San Joaquin River Basins Comprehensive Study (1998-2003) reflects a set of guiding principles that promote a systems approach to integrated floodplain management and ecosystem management in the Central Valley of California involving a watershed comprising 43,000 miles. The Comprehensive Study also required a concerted collaborative approach because of the scale involved and the history and diversity of the region. Although developed independently of the Civil Works Strategic Plan released in March 2004, the Comprehensive Study represents an attempt to apply watershed principles espoused in the Strategic Plan and the Corps' Environmental Operating Principles. The Comp Study provides a case study in lessons learned about both applying and not these principles. This session will pass along to planners engaged in watershed-scale studies lessons about the importance of a systems approach and tools, the need for a shared vision and guiding principles among key stakeholders, attention to both technical and human dimensions of watershed work, the role of the Corps as a neutral facilitator, and the need to manage expectations.

Title: **Challenges and Collaboration in the Watershed Planning: Fountain Creek Watershed Study, Colorado**
Presenter: **Charles Wilson, Albuquerque District**

Abstract: The Fountain Creek watershed encompasses approximately 930 sq miles in south-central Colorado along the front range of the Rocky Mountains, extending from Palmer Lake in the north to Colorado Springs and eventually south to Pueblo. The Fountain Creek Watershed Study was the first watershed study undertaken by the Albuquerque District. This ongoing study is evaluating hydrologic, hydraulic, and environmental characteristics of over 150 lineal stream miles, through areas ranging from highly urbanized to rural/agricultural. A broad spectrum of interests, represented by 9 communities, 2 counties, and 2 state agencies has collaboratively participated in the advancement of the study as cost-sharing sponsors. Defining the study scope and level of detail to the satisfaction of the many stakeholders was one of many challenges faced by the study team. The communication and coordination necessary to bring these interests together to sign a FCSA and conduct the study presented a number of challenges that were addressed primarily through the formation of a technical advisory team, and an executive body made of elected officials. Education of the PDT and sponsors on the watershed study concept and its products is an ongoing challenge that will continue through the completion of the final report.

Title: **Collaborative Activities and Relationships in the Willamette Watershed**

Presenters: **Martin Hudson, Portland District; Matt Rea, Portland District**

This presentation will present an overview of the many collaborative planning processes being undertaken in the Willamette River Basin. These activities cut across organizational boundaries within the Corps, and among a vast array of stakeholders and collaborative partners. Topics will include:

- Overview of the Willamette River Basin and collaborative planning issues and opportunities
- Planning's role in basin management, outreach and coordination
- Development of Collaborative Planning Models; Willamette Basin Case Study
- Planning's Role in the Willamette Interagency Flow Management Coordination Team
- Willamette River Basin Sustainable Rivers Project (with The Nature Conservancy)
- Collaboration in the Eugene/Springfield Metropolitan Waterways Metro Area GI Feasibility Study
- Perspectives of local sponsors on collaborating with the Corps of Engineers
- Operations Division role as "Planner Forward" in the Willamette River Basin
- Governor's Willamette River Legacy Program; MOU between the State of Oregon and Portland District
- The "Basin Coordinator" Concept
- "Planner Forward" in the Willamette River Basin
- Development of the "Corps Statesperson"

Title: **Collaborative Modeling for Water Planning in the Willamette River Basin**

Presenters: **Matt Rea, Portland District; Hal Cardwell, IWR**

IWR, the Portland District, and other partners will be working together over the next couple years on a CACP effort for water resources planning within the Willamette River Basin. Working in close cooperation with a local watershed group using EPA funds to set up an Ecosystem Marketplace, the CACP effort will involve the collaborative development of computer models that will help the Corps and partners evaluate the impact of Corps reservoir operations on water quality, and other parameters. Part of this effort will link commonly used reservoir operation (HEC-ResSIM) and water quality models (CE-QUAL2E) to environmental and economic parameters using a transparent stakeholder-friendly modeling environment. This talk will summarize the plans for this CACP effort and the challenges that this case will present.

SESSION VI
TIME: Thursday 11 May, 10:30-12:00
ROOM: Elizabethan D
TRACK: Planning Community of Practice
TOPIC: Planning Community of Practice in Action
MODERATOR: Noel Clay, Wilmington District

PRESENTATIONS:

Title: **Economics Community of Practice – How to Start a Good Program in Your MSC Neighborhood**
Presenters: **Jon Brown, Buffalo District**

Abstract: The USACE has embraced the Community of Practice (CoP) concept as a tool to help enable regionalization. CoPs in the Corps are expected to enhance professional and technical development and competence; promote open communication among organizational elements, share lessons learned, best practices, and bring knowledge back to project delivery teams for more effective and efficient production. The Great Lakes and Ohio River Division (LRD) Regional Technical Specialists (RTS) Economists have been tasked with implementing an active Economics CoP within LRD. This presentation will show how this has successfully been accomplished through regularly scheduled teleconferences coupled with technical presentations using MS NetMeeting®. These planned CoP activities have helped to focus regional awareness, strengthen group cohesion, and enhance technological learning.

Title: **"Bridging the Gap" with a Semi-Formal Mentoring Program: SPD Experiences in setting up a Regional Program**
Presenters: **Boni Bigornia, Les Tong, Miki Fujitsubo, Tanis Toland, Jennifer Dunn, Joel Benegar, Phil Boawn, and Deanie Kennedy**

Abstract: Three years ago, the SPD Regional Planning Board supported the development of a voluntary mentoring program for the Community of Practice. The team was comprised of one or two co-leads from each of the four district offices and the MSC. For the most part, this sub-CoP team has had meetings (virtually) each month, and in person at the annual SPD Planning Workshop, where it developed teambuilding/mentoring exercises. Much of this program's focus is on developing cultural education or 'street smarts' to supplement the existing traditional 'career' or 'technical' mentoring. Mentoring 'tools' have been developed and made available to mentoring pairs throughout the region. Some program features include: a one-stop shopping mentoring website with several tools for career development; a milestone checklist to provide structure for monthly progression; incentive awards to mark completion of each milestone; and a trophy presented to the SPD Mentoring Team of the Year. This presentation will share the mentoring tools with the greater Planning CoP, discuss lessons learned over the past 3 years, present some yet-undeveloped ideas… and also provide some light entertainment. This presentation will help ignite increased mentoring opportunities, something that is much needed, yet often-ignored.

Title: **Approaches to Regionalization in Planning – the SAD Model**
Presenters: **Wilbert V. Paynes, South Atlantic Division**

Abstract: The South Atlantic Division has embarked on a regionalization concept that it believes captures the intent and spirit of 2012 and deals with the realities of today's fiscal environment, and its unique circumstances. There are 5 districts within the South Atlantic Divisions, each with a fully functioning Planning organization. Each of the five Planning offices were very different in size, capability, composition and abilities. The planning organizations ranged from a size of 10 to that of over 100; and planning programs that ranged from a several million dollars to over $50 million. To address a whole host of issues (funding decline, key personnel retirement, delivery of quality of planning products, disparity in programs, etc.) SAD has organized it Planning organization into three "Regional Planning Centers" that are now further interdependent. We have the Mobile-Savannah Regional Planning Center; Wilmington – Charleston Planning Center; and the Jacksonville Regional Planning Center. This presentation will show the process followed in establishing the Centers, options that were considered, implementation challenges, benefits of this regionalization approach, and discussion on how things are working.

Title: **Approaches to Regionalization in Planning: The NAD Model**
Presenters: **Pete Blum, North Atlantic Division and Robert Pace, Baltimore District**

Abstract**:** The North Atlantic Division (NAD) operates as a Regional Business Center servicing customers throughout the Mid-Atlantic and Northeastern regions of the United States. NAD's planning structure and operating model focuses on customer service, strong local presence, and regional depth. While Districts do and must continue to maintain close relationships with customers, regional relationships that transcend individual District boundaries are becoming an increasingly common mode of operation that benefits each District, our region, and our customers. Workload sharing, inter-district project execution, and regional program development are common business practices within the region. NAD's Hurricane and Storm Damage Prevention Planning Center of Expertise (PCX) has been galvanized to use the full breadth of regional resources that are now being applied to benefit the nation.